

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 18, 2007**

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER: St. Louis District, Conner Building on Clayton Road, MVS-2007-815-001-SNR\_unnamed tributary**

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:**

State: Missouri County/parish/borough: St. Louis County City: Ellisville  
Center coordinates of site (lat/long in degree decimal format): Lat. 38:60:72.90° **N**, Long. 38:60:72.91° **W**.  
Universal Transverse Mercator: 16 North

Name of nearest waterbody: Caulks Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Missouri River

Name of watershed or Hydrologic Unit Code (HUC): Lower Missouri (10300200)

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): November 27, 2007

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.  
Explain: .

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: 630 linear feet: 3 width (ft) and/or 0.04 acres.

Wetlands: acres in total.

**c. Limits (boundaries) of jurisdiction based on: Established by OHWM.**

Elevation of established OHWM (if known): .

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.  
Explain:.

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

### **SECTION III: CWA ANALYSIS**

#### **A. TNWs AND WETLANDS ADJACENT TO TNWs**

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

**1. TNW**

Identify TNW: .

Summarize rationale supporting determination: .

**2. Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: .

#### **B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

**1. Characteristics of non-TNWs that flow directly or indirectly into TNW**

**(i) General Area Conditions:**

Watershed size: **Pick List**

Drainage area: 9.22 **acres**

Average annual rainfall: 42.1 inches

Average annual snowfall: 9 inches

**(ii) Physical Characteristics:**

**(a) Relationship with TNW:**

☐ Tributary flows directly into TNW.

☒ Tributary flows through **3** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **5-10** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

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<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Identify flow route to TNW<sup>5</sup>: The unnamed tributary originates within the site's boundaries, and flows approximately 0.58 miles before its confluence with Caulks Creek. At this location, Caulks Creek is considered a Relatively Permanent Water (RPW). Caulks Creek flows through St. Louis County approximately 6.26 miles prior to reaching a second RPW, Bonhomme Creek. From this point, Bonhomme Creek flows approximately 2.32 miles prior to reaching the Missouri River. Missouri River is a Section 10 Navigable Water.

Tributary stream order, if known: First Order.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural  
☐ Artificial (man-made). Explain: .  
☐ Manipulated (man-altered). Explain:.

Tributary properties with respect to top of bank (estimate):

Average width: 3 feet

Average depth: 2 feet

Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

<input checked="" type="checkbox"/> Silts	<input checked="" type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: The non- RPW (on-site unnamed tributary) consists of a fairly incised stream channel. The physical appearance of the creek is somewhat exaggerated, as it is influenced by stormwater being discharged through its channel from an adjacent subdivision located on the upslope ridgeline.

Presence of run/riffle/pool complexes. Explain: No riffle pool complexes were observed within the review area.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: Stream likely only carries stormwater following precipitation events. The stream bed appeared to not be influenced by the presence of groundwater, as intermittent pooling or bed saturation was not observed throughout the entire reach.

Other information on duration and volume: .

Surface flow is: **Discrete and confined.** Characteristics: Spoke with the property owner regarding stream flow. The property owner indicated that most stormflow events remained confined to the channel. However, there have been a couple of instances, which were heavy rain events, where stormflow had "jumped the bank" in the past year.

Subsurface flow: **Unknown.** Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM <sup>6</sup> (check all indicators that apply):	
<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input checked="" type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input checked="" type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input checked="" type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. <sup>7</sup> Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

<sup>6</sup> A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup> Ibid.

- |  |  |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by:              | <input type="checkbox"/> Mean High Water Mark indicated by:            |
| <input type="checkbox"/> oil or scum line along shore objects      | <input type="checkbox"/> survey to available datum;                    |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings;                            |
| <input type="checkbox"/> physical markings/characteristics         | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges                              |  |
| <input type="checkbox"/> other (list):                             |  |

**(iii) Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Water was not present within the stream channel reach. However, the tributary carries stormwater generated within a subdivision that exists on an upslope ridgeline. Although there were no observable pollutants, potential sources of pollution within the channel can include non-point source discharges from road runoff, as well as fertilizer and pesticide applications to lawns within the residential neighborhood.

Identify specific pollutants, if known: None observed.

**(iv) Biological Characteristics. Channel supports (check all that apply):**

☒ Riparian corridor. Characteristics (type, average width): The stream channel measures approximately 630 linear feet. Most of the entire channel is enveloped by a forested corridor. At the lower end (last 100 feet), the stream channel flows through the property owner's maintained lawn and into a roadside culvert.

- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
- ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

**2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

**(i) Physical Characteristics:**

**(a) General Wetland Characteristics:**

Properties:

Wetland size: acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:.

**(b) General Flow Relationship with Non-TNW:**

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

**(c) Wetland Adjacency Determination with Non-TNW:**

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain:.
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

**(d) Proximity (Relationship) to TNW**

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

**(ii) Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known: No specific pollutants observed. .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: Emergent habitat consisting of mostly *Phragmites australis*.
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
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Summarize overall biological, chemical and physical functions being performed:

**C. SIGNIFICANT NEXUS DETERMINATION**

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

**Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The unnamed, non-Relatively Permanent Flow Water (non-RPW) possesses features of an ephemeral tributary with an ordinary high water mark (OHW). It averages approximately 3 feet at the bed width and approximately 2 feet for the bank height. Features observed supporting clear evidence of flow and an OHW throughout the entire channel include: scour, the presence of litter and debris, and a clear line impressed on the bank. Based on observed characteristics and its location within the 9 acre watershed, the unnamed tributary indicates first order stream hydrology. There is not any interruption of flow or hydrologic connectivity between the 630 linear foot tributary and Caulks Creek. Based on observed conditions, the unnamed tributary has the capacity to carry surface flow hydrology via a discrete and confined channel to Caulks Creek. The off-site segment of Caulks Creek is perennial, which flows into Bonhomme Creek, a primary tributary to the Missouri River. Caulks Creek joins Bonhomme Creek approximately 2.32 river miles upstream of its confluence with the Missouri River. It has been determined that the non-RPW maintains hydrologic connectivity to Caulks Creek and the Missouri River, thereby providing a significant nexus between the non-RPW and a TNW. Hydrologic connectivity refers to the flow that transports organic matter and nutrients, energy, and aquatic organisms throughout the system (Freeman et al., 2006). The following outlines how the

unnamed RPW maintains a significant nexus to Caulks Creek, Bonhomme Creek, and the Missouri River through its hydrologic connectivity.

The non-RPW's surrounding riparian area and general conditions of its drainage area consist of forested conditions, suggesting an continual source of organic input through interception of leaf litter and coarse woody debris. During the site visit, evidence of the following in-stream organic components were observed: leaves, woody debris, and leaf fragments. Organic material, such as those described, are processed by a number of fungi, bacteria, and invertebrates. Leaves and other detrital material are processed by a feeding group referred to as "shredders", which can include larvae of crane flies, caddisflies, nymphs of stoneflies, and crayfish. Shredders break down coarse particulate matter, allowing the processed material to be utilized by a secondary group, commonly referred to as "collectors". Collectors then process the finer materials of organic matter, eventually contributing to the dissolved organic matter content and fine particulate matter content that continually flows downstream (Smith and Smith 2001). In general, as the coarse particulate organic matter and fine particulate organic matter is transferred downstream, invertebrate populations migrate with the material. The diversity of aquatic fauna in headwater streams contributes to the biodiversity of a river (Meyer et al. 2007), and as these "drifting" invertebrate populations are being transported downstream, they fit into the complex foodweb of Caulks Creek, Bonhomme Creek, and the Missouri River.

The unnamed RPW influences the chemistry of Caulks Creek through its transport of sediments and nutrients and geochemical cycling. Rainfall within this area provides a frequent pulse of hydrology, thus providing a source of hydrology to local waterways. It is anticipated that the on-site tributary contributes to the chemical make up of Caulks Creek, through its ability to convey sediments and nutrients during these pulses. Although specific pollutants were not observed within the channel, it is anticipated that the watercourse is the recipient of non-point source pollutants such as fertilizers, pesticides, and other pollutants that are common to an urban environment. These nutrients and chemicals can be transported downstream to Caulks Creek as they are carried in suspension in stormwater. After water flows through the channel, the process of drying produces natural chemical and physical changes in the headwater stream. It has been identified that in even when headwater streams "dry up", they continue to be an integral part of the overall stream conditions through their influence on river chemistry (Izbicki 2007).

Lastly, headwater streams have been documented as providing necessary habitat for a variety of birds, mammals, reptiles, and amphibious populations. Because headwater streams have a small catchment area, they are varied and maintain some of the most diverse habitats within a lotic system. Headwater streams are utilized not only by species unique to headwater streams, but are also used by animals requiring headwater streams for certain life stages and/or are utilized by animals that migrate between headwater environments and larger waters (Meyer 2007).

The non-RPW maintains a hydrologic connection to Caulks Creek through an open and defined channel. Evidence of water flow was indicated through the presence of clear indicators of an OHW. Due to the hydrologic connection, the unnamed tributary has the capacity to contribute hydrology, carry pollutants, provide habitat for aquatic life cycles, and provide organic input to downstream waters. Based on these hydrologic connections, it has been determined that the non-RPW maintains a significant nexus to Caulks Creek, and subsequently Bonhomme Creek, and the Missouri River.

#### LITERATURE CITED

- Chapra, S.C. 1997. Surface Water-Quality Modeling. WCB McGraw-Hill, Burr Ridge, Illinois
- Freeman, M.C., C.M. Pringle, and C. R. Jackson. 2007. Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales. *Journal of the American Water Resources Association* 43:5-14.
- Izbicki, J.A. 2007. Physical and Temporal Isolation of Mountain Headwater Streams in the Western Mojave Desert, Southern California. *Journal of the American Water Resources Association*. 43: 26-40.
- Meyer, J.L., D.L. Strayer, J.B. Wallace, S.L. Eggert, G.S. Helfman, and N.E. Leonard. 2007. The Contribution of Headwater Streams to Biodiversity in River Networks. *Journal of the American Water Resources Association*. 43: 86-103.
- Smith, R.L. and T.M. Smith. 2001. Ecology and Field Biology. Benjamin Cummings, New York, pp. 644-650.

2. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:.

#### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:  
☐ TNWs: linear feet width (ft), Or, acres.  
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
- ☐ Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
  - ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☒ Tributary waters: **630** linear feet **3** width (ft).
  - ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- ☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**6. Wetlands abutting to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

<sup>8</sup>See Footnote # 3.

<sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

**Identify water body and summarize rationale supporting determination:** .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.  
Identify type(s) of waters: .
- ☐ Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - ☐ Prior to the Jan 2001 Supreme Court decision in “SWANCC,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
- ☐ Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

**SECTION IV: DATA SOURCES.**

**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps:.
- ☐ Corps navigable waters’ study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Manchester Quad.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: St. Louis County, Missouri
- ☒ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s):.

<sup>10</sup> Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.



- ☒ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): 2007 aerial photo prepared by <http://cares.missouri.edu>  
or ☐ Other (Name & Date):.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify):Field review November 27, 2007.

**B. ADDITIONAL COMMENTS TO SUPPORT JD:.**